

GP-303715

## LOAD FOLLOWING ALGORITHM FOR A FUEL CELL BASED SYSTEM

## ABSTRACT OF THE DISCLOSURE

A fuel cell generation system employing a load following algorithm that provides the desired output power from the fuel cell on demand. The system includes a draw current sensor that measures the current drawn from the fuel cell used to satisfy the system load demands. The load following algorithm uses the measured draw current to identify the proper amount of fuel and air to meet the load demands, and then provides a buffer of extra fuel and air to the fuel cell so if the load demand suddenly increases, the fuel cell is able to immediately produce the extra output power. As the current drawn from the fuel cell changes in response to changing load demands, the load following algorithm causes the amount of fuel and air being applied to the fuel cell stack to increase and decrease so that the buffer of extra fuel and air is maintained substantially constant.